Oklahoma
McAlester Army Ammunition Plant

Facility and Location

McAlester Army Ammunition Plant (AAP) is one of four Tier I DoD ammunition storage facilities and is the Army's largest in terms of storage capability. McAlester AAP's mission includes load, assemble, and pack of conventional and missile munitions and related items. Since 1943, the facility has conducted storage support, surveillance, inventory, maintenance, demilitarization, and insensitive munitions development and activities.

Media Sampled and Findings

Drinking Water — Prior to 2007, two samples from one site reported no detection.
Groundwater — In 2011, 3 of 56 samples detected perchlorate from 20 to 31 ppb. In 2010, 3 of 53 samples detected perchlorate from 41 to 52.1 ppb. In 2009, 4 of 53 samples detected perchlorate from 20 to 31 ppb. In 2008, 2 of 27 samples detected perchlorate from 22 to 23 ppb. In 2007, 18 samples reported no detection. All detections were found in relation to compliance testing under OB/OD monitoring.
Sediment — Prior to 2007, two samples from one site reported no detection.
Soil — Prior to 2007, four samples from two sites reported no detection.
Surface Water — Prior to 2007, 29 samples from three sites reported no detection.
Wastewater — In 2011, six samples reported no detection. In 2010, 24 samples reported no detection. In 2009, 24 samples reported no detection. In 2008, 16 samples reported no detection. Prior to 2007, three samples from three sites reported no detection.

Appropriate Actions

Groundwater samples were above the EPA and DoD Preliminary Remediation Goal of 15 ppb. McAlester AAPs Resource Conservation and Recovery Act (RCRA) open burn/open detonation (OB/OD) permit requires semi-annual monitoring for perchlorate. The National Pollutant Discharge Elimination System permit requires collection of two treated wastewater discharge samples per month for perchlorate. Perchlorate monitoring and a perchlorate treatment system have been added to the explosive wastewater discharge associated with munitions operations.

At the new open burn area, Monitoring Well (MW) 39 is in the work area of McAlester AAP's open burn area. The monitoring wells downgradient of MW 39, at the compliance boundary have shown no perchlorate. Additionally, monitoring wells next to the pans/pits in the work area can easily become contaminated during sampling activities or if they are damaged from operations. McAlester AAP has removed all but one existing monitoring well (MW-39) within the work area with approval of the Oklahoma Department of Environmental Quality. In addition, the groundwater is not used for drinking water at McAlester AAP and the nearest drinking water source is approximately 1.5 miles away.